

WATERMARK DETECTION UTILIZING
REGIONS WITH HIGHER PROBABILITY OF SUCCESS

Abstract of the Disclosure

The present invention detects the presence of a digital watermark in an image by selecting regions within the image having a high probability of containing the watermark. The image is examined to determine which regions of the image have characteristics indicating that there is a high probability that a watermark signal can be detected in that region of the image. The regions that have a high probability that a watermark can be detected (in contrast to all regions of the image) are examined to find watermark data. Probability factors used to select detection regions include: requiring a minimum variance separation between detection blocks; requiring a minimum distance between overlapping blocks; segmenting the detection blocks into a first and second subset based on separate criteria; establishing a keep away zone to prevent selection of a detection block near an image's border; and selecting a detection block only after its neighbors met sufficient threshold requirements. These probability factors can be used separately or in conjunction to determine those regions of an image that have characteristics indicating a high probability that a watermark signal can be detected therein.